

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 13127PC2	<b>FOR FURTHER ACTION</b>		see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/AU2005/000500	International filing date (day/month/year) 6 April 2005	(Earliest) Priority Date (day/month/year) 8 April 2004	
Applicant THE STATE OF QUEENSLAND ACTING THROUGH ITS DEPARTMENT OF HEALTH et al			

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

## 1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☒ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☐ Certain claims were found unsearchable (See Box No. II).

3. ☐ Unity of invention is lacking (See Box No. III).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

- a. the figure of the drawings to be published with the abstract is Figure No. I

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

## Box No. I Nucleotide and/or amino acid sequence(s) (Continuation of item 1.b of the first sheet)

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, the international search was carried out on the basis of:

a. type of material

☐ a sequence listing

☒ table(s) and/or figures related to the sequence listing

b. format of material

☒ in written format

☐ in computer readable form

c. time of filing/furnishing

☒ contained in the international application as filed

☐ filed together with the international application in computer readable form

☐ furnished subsequently to this Authority for the purposes of search

2. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

3. Additional comments.

The present application claims PCR primers having the nucleotide sequences of SEQ ID NO: 1-9. The specification indicates that the nucleotide sequences are set forth in Table 1 and Figure 1 (p. 5 lines 4-5; p. 6 Brief Description of Figures). However Table 1 and Figure 1 do not clearly identify the primers according to their SEQ ID NO. Based on the information provided in the Brief Description of Figures the claims to specific primers have been searched on the assumption that the SEQ ID NOs correspond to the primers listed in Figure 1 as set out below.

- \* NG-pap-1 = SEQ ID NO: 1
- \* NG-pap 2 = SEQ ID NO: 2
- \* NG-pap-p1 = SEQ ID NO: 3
- \* NG-pap-p2 = SEQ ID NO: 4
- \* NG-pap 3 = SEQ ID NO: 5
- \* NG-pap 4 = SEQ ID NO: 6
- \* NG-pap 5 = SEQ ID NO: 7
- \* NG-pap 6 = SEQ ID NO: 8
- \* NG-pap 7 = SEQ ID NO: 9

## A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. <sup>7</sup>: C12Q 1/68

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

SEE BELOW

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SEE BELOW

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

MEDLINE, CAPLUS, WPIDS, BIOSIS; Keywords: neisseria; gonorrhoeae; porA, porB, porC, porD, porE, porF, porG, porH, porI, porJ, porK, porL, porM, porN, porO, porP, porQ, porR, porS, porT, porU, porV, porW, porX, porY, porZ, porAA, porAB, porAC, porAD, porAE, porAF, porAG, porAH, porAI, porAJ, porAK, porAL, porAM, porAN, porAO, porAP, porAQ, porAR, porAS, porAT, porAU, porAV, porAW, porAX, porAY, porAZ, porBA, porBB, porBC, porBD, porBE, porBF, porBG, porBH, porBI, porBJ, porBK, porBL, porBM, porBN, porBO, porBP, porBQ, porBR, porBS, porBT, porBU, porBV, porBW, porBX, porBY, porBZ, porCA, porCB, porCC, porCD, porCE, porCF, porCG, porCH, porCI, porCJ, porCK, porCL, porCM, porCN, porCO, porCP, porCQ, porCR, porCS, porCT, porCU, porCV, porCW, porCX, porCY, porCZ, porDA, porDB, porDC, porDD, porDE, porDF, porDG, porDH, porDI, porDJ, porDK, porDL, porDM, porDN, porDO, porDP, porDQ, porDR, porDS, porDT, porDU, porDV, porDW, porDX, porDY, porDZ, porEA, porEB, porEC, porED, porEE, porEF, porEG, porEH, porEI, porEJ, porEK, porEL, porEM, porEN, porEO, porEP, porEQ, porER, porES, porET, porEU, porEV, porEW, porEX, porEY, porEZ, porFA, porFB, porFC, porFD, porFE, porFF, porFG, porFH, porFI, porFJ, porFK, porFL, porFM, porFN, porFO, porFP, porFQ, porFR, porFS, porFT, porFU, porFV, porFW, porFX, porFY, porFZ, porGA, porGB, porGC, porGD, porGE, porGF, porGG, porGH, porGI, porGJ, porGK, porGL, porGM, porGN, porGO, porGP, porGQ, porGR, porGS, porGT, porGU, porGV, porGW, porGX, porGY, porGZ, porHA, porHB, porHC, porHD, porHE, porHF, porHG, porHH, porHI, porHJ, porHK, porHL, porHM, porHN, porHO, porHP, porHQ, porHR, porHS, porHT, porHU, porHV, porHW, porHX, porHY, porHZ, porIA, porIB, porIC, porID, porIE, porIF, porIG, porIH, porII, porIJ, porIK, porIL, porIM, porIN, porIO, porIP, porIQ, porIR, porIS, porIT, porIU, porIV, porIW, porIX, porIY, porIZ, porJA, porJB, porJC, porJD, porJE, porJF, porJG, porJH, porJI, porJJ, porJK, porJL, porJM, porJN, porJO, porJP, porJQ, porJR, porJS, porJT, porJU, porJV, porJW, porJX, porJY, porJZ, porKA, porKB, porKC, porKD, porKE, porKF, porKG, porKH, porKI, porKJ, porKK, porKL, porKM, porKN, porKO, porKP, porKQ, porKR, porKS, porKT, porKU, porKV, porKW, porKX, porKY, porKZ, porLA, porLB, porLC, porLD, porLE, porLF, porLG, porLH, porLI, porLJ, porLK, porLL, porLM, porLN, porLO, porLP, porLQ, porLR, porLS, porLT, porLU, porLV, porLW, porLX, porLY, porLZ, porMA, porMB, porMC, porMD, porME, porMF, porMG, porMH, porMI, porMJ, porMK, porML, porMM, porMN, porMO, porMP, porMQ, porMR, porMS, porMT, porMU, porMV, porMW, porMX, porMY, porMZ, porNA, porNB, porNC, porND, porNE, porNF, porNG, porNH, porNI, porNJ, porNK, porNL, porNM, porNN, porNO, porNP, porNQ, porNR, porNS, porNT, porNU, porNV, porNW, porNX, porNY, porNZ, porOA, porOB, porOC, porOD, porOE, porOF, porOG, porOH, porOI, porOJ, porOK, porOL, porOM, porON, porOO, porOP, porOQ, porOR, porOS, porOT, porOU, porOV, porOW, porOX, porOY, porOZ, porPA, porPB, porPC, porPD, porPE, porPF, porPG, porPH, porPI, porPJ, porPK, porPL, porPM, porPN, porPO, porPP, porPQ, porPR, porPS, porPT, porPU, porPV, porPW, porPX, porPY, porPZ, porQA, porQB, porQC, porQD, porQE, porQF, porQG, porQH, porQI, porQJ, porQK, porQL, porQM, porQN, porQO, porQP, porQQ, porQR, porQS, porQT, porQU, porQV, porQW, porQX, porQY, porQZ, porRA, porRB, porRC, porRD, porRE, porRF, porRG, porRH, porRI, porRJ, porRK, porRL, porRM, porRN, porRO, porRP, porRQ, porRR, porRS, porRT, porRU, porRV, porRW, porRX, porRY, porRZ, porSA, porSB, porSC, porSD, porSE, porSF, porSG, porSH, porSI, porSJ, porSK, porSL, porSM, porSN, porSO, porSP, porSQ, porSR, porSS, porST, porSU, porSV, porSW, porSX, porSY, porSZ, porTA, porTB, porTC, porTD, porTE, porTF, porTG, porTH, porTI, porTJ, porTK, porTL, porTM, porTN, porTO, porTP, porTQ, porTR, porTS, porTT, porTU, porTV, porTW, porTX, porTY, porTZ, porUA, porUB, porUC, porUD, porUE, porUF, porUG, porUH, porUI, porUJ, porUK, porUL, porUM, porUN, porUO, porUP, porUQ, porUR, porUS, porUT, porUU, porUV, porUW, porUX, porUY, porUZ, porVA, porVB, porVC, porVD, porVE, porVF, porVG, porVH, porVI, porVJ, porVK, porVL, porVM, porVN, porVO, porVP, porVQ, porVR, porVS, porVT, porVU, porVV, porVW, porVX, porVY, porVZ, porWA, porWB, porWC, porWD, porWE, porWF, porWG, porWH, porWI, porWJ, porWK, porWL, porWM, porWN, porWO, porWP, porWQ, porWR, porWS, porWT, porWU, porWV, porWW, porWX, porWY, porWZ, porXA, porXB, porXC, porXD, porXE, porXF, porXG, porXH, porXI, porXJ, porXK, porXL, porXM, porXN, porXO, porXP, porXQ, porXR, porXS, porXT, porXU, porXV, porXW, porXX, porXY, porXZ, porYA, porYB, porYC, porYD, porYE, porYF, porYG, porYH, porYI, porYJ, porYK, porYL, porYM, porYN, porYO, porYP, porYQ, porYR, porYS, porYT, porYU, porYV, porYW, porYX, porYY, porYZ, porZA, porZB, porZC, porZD, porZE, porZF, porZG, porZH, porZI, porZJ, porZK, porZL, porZM, porZN, porZO, porZP, porZQ, porZR, porZS, porZT, porZU, porZV, porZW, porZX, porZY, porZZ.

Registry, CA; SEQ ID NO: 1-9

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	Whiley, D. M. et al., 2004 (July), A new confirmatory <i>Neisseria gonorrhoeae</i> real-time PCR assay targeting the porA pseudogene, <i>European Journal of Clinical and Microbial Infectious Diseases</i> , 23: 705-710.  Whole document	1-23
X	Glustein, J. Z. et al., 1999, Development of a simplex polymerase chain reaction-based assay for the detection of <i>Neisseria meningitidis</i> , <i>Molecular Diagnosis</i> , 4: 233-239.  Whole document	1-7, 10, 12

☒ Further documents are listed in the continuation of Box C.☐ See patent family annex

## \* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"I" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"E" earlier application or patent but published on or after the international filing date

"X" document of particular relevance, the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"L" document which may throw doubt on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"O" document referring to an oral disclosure, use, exhibition or other means

"E" document member of the same patent family

"P" document published prior to the international filing date but later than the priority date claimed

Date of the actual completion of the international search  
20 May 2005Date of mailing of the international search report  
30 MAY 2005

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	McKnew, D. L. et al., 2003, Porin variation among clinical isolates of <i>Neisseria gonorrhoeae</i> over a 10-year period, as determined by <i>Por</i> variable region typing, <i>Journal of Infectious Diseases</i> , <b>187</b> : 1213-1222.  Whole document	1-5, 7, 12, 13, 16, 19, 21
A	Tabrizi, S. N. et al., 2004, Evaluation of real time polymerase chain reaction assays for confirmation of <i>Neisseria gonorrhoeae</i> in clinical samples tested positive in the Roche Cobas Amplicor assay, <i>Sexually Transmitted Infections</i> , <b>80</b> : 68-71.  Whole document	1-23